

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of	)	
	)	
Promoting Investment in the 3550-3700 MHz	)	GN Docket No. 17-258
Band;	)	
	)	
Petitions for Rulemaking Regarding the	)	RM-11788 (Terminated)
Citizens Broadband Radio Service	)	RM-11789 (Terminated)

**COMMENTS OF SACRED WIND COMMUNICATIONS, INC.**

Sacred Wind Communications, Inc. (“Sacred Wind”) respectfully submits these comments in response to the October 24, 2017 Notice of Proposed Rulemaking and Order Terminating Petitions in the referenced proceeding seeking comment on proposed rule changes to the rules governing Priority Access Licenses (“PALs”) that will be issued in the 3550-3700 MHz band (3.5 GHz Band), including larger geographic license areas, longer license terms, auction methods and renewability.<sup>1</sup>

**INTRODUCTION AND SUMMARY**

Sacred Wind, a grandfathered 3.65 GHz licensee, opposes the proposed rule changes in the NPRM, which would effectively preclude small rural providers, like Sacred Wind, from obtaining PAL licenses in order to serve remote customers in scattered, rural markets. As discussed more fully below, the larger geographic areas and longer license terms proposed by the

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<sup>1</sup> Notice of Proposed Rulemaking and Order Terminating Petitions, *In the Matter of Promoting Investment in the 3550-3700 MHz Band; Petitions for Rulemaking Regarding the Citizens Broadband Radio Service*, GC Docket No. 17-258 (rel. Oct. 24, 2017)(“3.5 GHz NPRM”).

Commission would likely increase the cost of PAL licenses at auction and raise the bar for small, rural providers to obtain spectrum well-suited for providing service in scattered, sparsely populated areas. As Sacred Wind looks to expand its 3.65 GHz network to continue to reach rural, tribal lands, the availability of PAL licenses at auction becomes a material concern. Sacred Wind urges the Commission to maintain the status quo for PAL licenses and continue to ensure adequate access to 3.5GHz spectrum by smaller, rural providers.

## **DISCUSSION**

### **A. Background on Sacred Wind**

Sacred Wind is a privately owned, New Mexico-based corporation formed in 2004 to introduce basic telephone and broadband services to the many thousands of unserved and underserved homes on the Navajo Reservation and near-Reservation lands in New Mexico, as well as to Navajo schools, businesses, and government locations, such as local Chapter houses. Sacred Wind is the only non-tribally owned rural local exchange carriers (“RLEC”) in the country wholly dedicated to serving a Tribal community, having developed a basic local and broadband infrastructure over a vast unserved Tribal area of the West.

In 2006, the company acquired from Qwest Corporation (“Qwest”) a portion of Qwest’s service territory comprising approximately 3,200 square miles in northwestern New Mexico on the Navajo Reservation and near-Reservation lands known as the “checkerboard,” as well as limited Qwest copper loop facilities in this territory. Sacred Wind serves a population of approximately 23,300, ninety-eight (98) percent of whom are Navajo citizens.

The population density of its service territory is about 7.3 people per square mile, one of the most sparsely populated areas in the country. Tribal areas, such as those served by Sacred Wind, are characterized by sparsely populated, expansive geographic territories and difficult topography. Sacred Wind is a carrier of last resort for 6,300 households, meaning that it cannot

terminate or withdraw from providing telephone service unless the New Mexico Public Regulation Commission (“PRC”) finds that another telecommunications company is able to provide service without interruption. No other such company exists in Sacred Wind’s service area at this time.

Last-mile wireline technologies are particularly ill-suited for remote Tribal lands, such as Sacred Wind’s service territory. As the Commission recognized in its 2000 Report and Order on extending wireless service to Tribal lands, “[v]arious factors contribute to the low penetration rates on tribal lands. Chief among these factors are geographic remoteness, sparse population clusters, low income levels and high unemployment rates.”<sup>2</sup> In general, the sparse population over a vast land area makes deployment of a wired telecommunications network cost prohibitive. For that reason, Sacred Wind has built out an alternative to a wireline network that still allows Sacred Wind to bring voice and broadband services to its service area. That alternative is an IP-based hybrid fiber/point-to-point microwave backbone network integrated with a 3.65 GHz WiMAX fixed wireless local loop (“FWLL”) access network.

For remote subscribers, the FWLL system replaces the typical copper, twisted pair distribution system with a point-to-multipoint radio access network operating on a 3.65 GHz WiMax platform. This system has been deployed and is operating under Sacred Wind’s nonexclusive 3.65 GHz nationwide license, with local database registrations, whose operations in the 3.5 GHz Citizens Broadband Radio Service are grandfathered under the *CBRS Report and Order*.<sup>3</sup>

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<sup>2</sup> See *Extending Wireless Telecommunications Services to Tribal Lands*, Report and Order and Further Notice of Proposed Rulemaking, 15 FCC Rcd 11794 ¶10 (2000).

<sup>3</sup> See *Amendment of the Commission’s Rules with Regard to Commercial Operations in the 3550-3650 MHz Band*, Report and Order and Second Further Notice of Proposed Rulemaking, 30 FCC Rcd 3959, ¶¶ 400-409 (2015)(“*CBRS Report and Order*”) ; 47 C.F.R. § 90.1338.

System reliability on its network approaches the network reliability of Tier 1 providers – 99.999 percent reliability (or downtime of 5 minutes per year). Sacred Wind is also operating an all-IP network, using IP-based Ethernet transmission across its entire network, including the last mile, using WiMAX IEEE 802.16 equipment. The use of WiMAX technology and the managed nature of IP transmission throughout the Sacred Wind network provide residential subscribers with wireline quality service and broadband service of up to 10 Mbps, with broadband service to schools and businesses of up to 100 Mbps.

To achieve this level of reliability, Sacred Wind has incorporated redundancy and protection into its 3.65 GHz WiMAX network, relying on physically separate WiMAX networks for working and protection channels, including separate frequencies, separate tower equipment (including separate amplifiers and antennas), and separate baseband processing units with redundant power supply for the working and protection equipment. The system relies on 45 MHz of spectrum in the 3.65 GHz band.

PAL licenses can serve as an important adjunct to Sacred Wind's adjacent 3.65 GHz band network. The microwave subscriber equipment and distribution access points utilized by Sacred Wind are compatible with frequencies ranging from 3.5 MHz to 3.7 MHz, and have been a central element of the company's network planning as it has expanded service to even more remote tribal lands. In fact, Sacred Wind broke new ground in testing and improving Airspan microwave equipment, successfully converting a data-centric subscriber radio antenna to a voice-centric antenna, for the purpose of obtaining a USDA/RUS telecommunications loan in 2006. With little potential for competitors in the lowest income and hardest to reach areas of its study area, Sacred Wind has relied on this unlicensed frequency as its solution to the Digital Divide that existed on Navajo lands.

Furthermore, using this same Fixed Wireless technology at 3.65 GHz, Sacred Wind has been able to extend its broadband reach to small rural communities adjacent to its study area, responding to those communities' plea for broadband. Sacred Wind has provided broadband access up to 20 Mbps to all residents in three small rural communities far more affordably than could the incumbent Local Exchange Carrier or cable television provider. Broadband service to two other nearby, small rural communities is planned for 2018. Were Sacred Wind forced to obtain PAL licenses that extend well beyond its service area, and thereby pay an inflated price for the spectrum relative to its need, the cost of efficiently serving those additional, adjacent communities would likely rise significantly due to the company's need to seek alternative technologies or licenses, maintain an inventory of different microwave equipment, and train and tool its technicians to maintain different microwave equipment. As such, Sacred Wind has a significant interest in ensuring that PAL licenses remain accessible to rural providers and are not devoured by larger providers.

**B. Increasing the PAL Geographic Licensing Area Would Negatively Affect Accessibility for Rural Providers**

Sacred Wind opposes increasing the geographic licensing area of PALs beyond the census tract designation that was adopted in 2015,<sup>4</sup> which adeptly offers flexibility in network deployments and accommodates rural footprints, such as Sacred Wind's, that cover sparsely populated, rural areas. Enlarging the geographic size of the licensing area would no doubt raise the price of the licenses at auction and move the licenses into the hands of larger entities capable of absorbing the cost. Such a result would be anathema to the true purpose of the low-power 3.5 GHz band, which is best-suited for use by providers in small scale, targeted deployments. Increased auction prices would forestall small, rural providers from obtaining PAL licenses and

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<sup>4</sup> *CBRS Report and Order*, ¶¶ 94-101.

result in significant coverage gaps in scattered rural areas that would not meet the density needs of larger providers.

Should the Commission decide to increase the geographic licensing area beyond the census tract, Sacred Wind urges the Commission to distinguish between designations in urban and rural areas, such that PALs in urban areas would be auctioned on a Metropolitan Statistical Areas (“MSA”) basis and rural areas would be auctioned on a census tract basis using the boundaries of Rural Service Areas (“RSA”). Alternatively, Sacred Wind would not oppose geographic designation of PALs on a county basis. These suggested alternatives to maintaining the census tract designation would ensure the ability for rural providers, such as Sacred Wind to obtain PALs at an affordable cost to serve small, targeted coverage areas.

In addition, the secondary market has not proven a useful option for smaller, rural providers, such as Sacred Wind, seeking to obtain additional spectrum. In Sacred Wind’s experience, the secondary market has offered inflated prices for large geographic footprints that extend well beyond Sacred Wind’s service area, and would require it to purchase large swaths of spectrum covering areas where it has no use. Sacred Wind has found, for example, that licensees have been reluctant to partition spectrum into smaller, more affordable segments, favoring sales to larger providers interested in consolidating spectrum. As a result, smaller providers are outpriced from the market and rural populations remain unserved. Sacred Wind’s experiences in the secondary market also further highlight the importance of maintaining smaller geographic license areas for PALs and offering meaningful opportunities for rural providers to obtain PAL licenses serving their service areas at auctions.

**C. Bidding Credits Would Encourage Participation by Rural Providers in PAL Auctions**

Sacred Wind supports the inclusion of bidding credits in PAL auctions for designated entities, including credits for Small Businesses and Rural Service Providers. The proposed bidding credits would be similar to those adopted by the Commission in anticipation of the 600 MHz Incentive Auction in July of 2015,<sup>5</sup> where bidding credits were provided to eligible rural service providers.<sup>6</sup>

**D. Longer PAL License Terms of Ten Years Would Result in Fewer Rural Providers Obtaining Access to 3.5 GHz Spectrum**

Sacred Wind opposes the extension of the current three-year license term for PAL licenses to the proposed ten-year term, as increasing the license terms would put up additional barriers to entry for rural providers and permit larger providers to accumulate PAL licenses and delay network investment and buildout by small rural providers. The Commission established the existing PAL three year license term in order to promote deployments by a variety of service providers, both large and small, and to lower costs of entry.<sup>7</sup> The rationale for adoption of shorter license terms in the CBRS Report and Order remains relevant today – shorter license terms “incentivize network investment” in a band that encompasses large variation in services.<sup>8</sup> Accordingly, Sacred Wind encourages the Commission to retain the current 3 year PAL license term.

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<sup>5</sup> Updating Part 1 Competitive Bidding Rules, et. al., *Report and Order*; *Order on Reconsideration of the First Report and Order*; *Third Order on Reconsideration of the Second Report and Order*; *Third Report and Order*, WT Docket Nos. 14-170 and 05-211; GN Docket No. 12-268; RM-11395 (rel. July 21, 2015).

<sup>6</sup> The Commission has defined an eligible rural service provider as a provider that provides commercial communications services to a customer base of fewer than 250,000 combined wireless, wireline, broadband, and cable subscribers and serve primarily rural areas. *See id.*

<sup>7</sup> CBRS Report and Order, ¶107.

<sup>8</sup> *Amendment of the Commission's Rules with Regard to Commercial Operations in the 3550-3650 MHz Band*, Order on Reconsideration and Second Report and Order, 31 FCC Rcd 5011, ¶43 (2016).

## **CONCLUSION**

Sacred Wind urges the Commission to continue to support network investment in rural areas by maintaining small geographic license areas and shorter term licenses, so that small, rural providers can have an opportunity to obtain PAL licenses at auction and grow their networks. The Commission should retain the currently adopted rules and avoid significant rule changes that would harm rural providers, such as Sacred Wind, which serves underserved, Tribal lands.

Respectfully submitted,

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